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A study on the perceptions and efficacy towards inclusive practices of teacher trainees

Paola Aiello • Università degli Studi di Salerno – paiello@unisa.it
Erika Marie Pace • Università degli Studi di Salerno – epace@unisa.it
Dimiter M. Dimitrov • George Mason University (USA) and National Center for Assessment in Riyadh (Saudi Arabia) – ddimitro@gmu.edu.
Maurizio Sibilio • Università degli Studi di Salerno – msibilio@unisa.it

Indagine sulle percezioni e sull'efficacia dei docenti in formazione verso un agire didattico inclusivo

This paper presents a study on the implicit dimensions that influence teacher agency and is aimed at investigating the teachers' sentiments, attitudes, concerns and perceived levels of efficacy to implement inclusive practices. The sample comprised in two groups: the first included 221 pre-service teachers undergoing training to teach in secondary schools and the second were 131 in-service teachers following a course to obtain the learning support teachers' warrant. The TEIP and the SACIE-R scales were administered to conduct the study. Results showed that the future learning support teachers had generally higher scores than the pre-service teachers. The positive attitude of the former group towards inclusive practices, however, seemed not to be linked to their greater teaching experience but more likely to the characteristics of their course of education.

Keywords: agency, attitudes, inclusion, SACIE-R scale, teacher efficacy, TEIP scale

Questo lavoro presenta uno studio sulle dimensioni implicite che influenzano l'agire didattico finalizzato ad indagare i sentimenti, gli atteggiamenti, le preoccupazioni, e i livelli di percezione dei docenti circa la propria efficacia nell'implementare pratiche inclusive. Il campione è stato suddiviso in due gruppi, il primo comprendente 221 corsisti del Tirocinio Formativo Attivo e il secondo costituito da 131 partecipanti al corso di specializzazione per insegnanti di sostegno. Per condurre l'indagine sono state somministrate due scale: la scala TEIP e la scala SACIE-R. I risultati hanno mostrato che i futuri insegnanti di sostegno del campione raggiungono generalmente punteggi più alti. Tuttavia, sembrerebbe che l'atteggiamento positivo di questi docenti non risulti essere legato alla loro esperienza di insegnamento, bensì alle caratteristiche dei percorsi della loro formazione.

Parole chiave: agentività, atteggiamenti, inclusione, scala TEIP, scala SACIE-R, teacher efficacy

Paola Aiello, Associate Professor in "Special Pedagogy and Didactics" at the Department of Humanities, Philosophy and Education of the University of Salerno, is the author of the paper. Erika Marie Pace, PhD student in "Didactic Corporealities, Technology and Inclusion" at the Department of Humanities, Philosophy and Education of the University of Salerno, is the co-author of the paper and the author of the section "Introduction to the research". Dimiter M. Dimitrov, Ph.D., Professor Emeritus at George Mason University, USA, and Senior Psychometrician at the National Center for Assessment in Riyadh, Saudi Arabia, was responsible for the data analysis and is the author of the sections "Data Analysis" and "Results". Maurizio Sibilio, Full Professor in "Special Pedagogy and Didactics" at the Department of Humanities, Philosophy and Education of the University of Salerno, is the scientific coordinator of the research.

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A study on the perceptions and efficacy towards inclusive practices of teacher trainees

1. Introduction

Having gained worldwide recognition as an effective way to guarantee the success of all students (Armstrong, Armstrong, & Spandagou, 2010), the need to promote inclusion in educational contexts has raised interest in studying the variables that impinge on the implementation of inclusive teaching practices. Studies have concentrated on the implicit and explicit components that influence teacher agency. These include cognitive, affective and environmental factors which, within a triadic system of causation, render teachers agents of change. As outlined in Bandura's Social Cognitive Theory "[p]ersons are neither autonomous agents nor simply mechanical conveyers of animating environmental influences. Rather, they make causal contribution to their own motivation and action within a system of triadic reciprocal causation" (1989, p. 1175). Linked to this vision of teachers as "change agents" are studies showing that teachers are one of the most significant in-school factors influencing student achievement (Avrimidis & Norwich, 2002; Hattie, 2009; OECD 2009, 2014a, EADSNE, 2012), stimulating educational research not only to identify the key competences, intended as the combination of knowledge, skills and understanding, but also to bring to light certain implicit dimensions that influence teaching and its effectiveness.

With regard to this latter aspect, research on practices aimed at understanding what exactly the teacher does while teaching and what happens in real teaching practices (Altet, 2006; Laneve, 2011; Perla, 2010), moves away from educational research aimed at demonstrating the influence of theories on teaching practices. This is because the focus of such research is that of making teaching practice emerge as a form of knowledge, epistemologically different from explicit knowledge and able to bring about learning (Perla, 2010). In fact, gradually, more and more research turned to studying action in teaching as a complex object and subject of knowledge (Rivoltella, 2012; Rivoltella, 2014; Rossi, 2011; Sibilio, 2014). This led to consider teaching as the result of the interaction between natural and environmental factors and includes all personal characteristics such as beliefs, attitudes, opinions, motivation and values that confer a specific intention. As a result, educational research can't afford not to take into account such a perspective when redefining the training models within an inclusive paradigm.

In fact, despite empirical research providing evidence of the benefits of inclusive approaches in school contexts, the acceptance of the concept of inclusion and its implementation on behalf of educators still cannot be ensured (Avramidis, Norwich, 2002). For this reason further research on the main factors influencing the effective implementation of inclusive practices needs to be conducted in order to investigate the manifest and latent variables that may hinder or promote changes in classroom and teaching practices.

2. Research on Sentiments, Attitudes, Concerns and Teacher Efficacy towards Inclusive Education in Italian Contexts

On the basis of such reflections and findings, for the past two years, research has also been undertaken by the Department of Humanities, Philosophy and Education at the University of Salerno on the correlation between a number of variables and teachers' willingness to implement inclusive practices (Aiello, Di Gennaro, Dimitrov, Pace, Zollo, Sibilio, 2016; Aiello, Sharma, Sibilio, 2016; Pace, Aiello, 2016; Pace, 2017; Sharma, Aiello, Pace, Round, Subban, 2017; Aiello et al., 2017; Hecht, Aiello, Pace, Sibilio, 2017). Besides identifying the factors that may influence teachers to change their teaching methods and the strategies to adopt more inclusive and innovative approaches, the research is being carried out with the aim of identifying methods and tools used on an international level to measure such latent variables. Moreover, the availability of validated questionnaires that can be used within the Italian context will not only provide insight into the Italian scenario but also offer the possibility of comparing data on an international level.

Results from a literature search conducted have shown that quantitative research approaches have predominantly been used (Fiorucci, 2014; Saloviita, 2015; Tschannen-Moran, Woolfolk Hoy, Hoy, 1998). In fact since the 70s, in a time when inclusive education was still in its outset in Italy and worldwide, a significant number of scales have been designed to measure the correlation between an array of variables influencing action in the presence of students with disability or specific educational and learning needs among all stakeholders, from teachers to school staff and parents. Some examples of these scales include the *Attitudes towards Mainstreaming Scale* (Berryman, Neal, 1980), the *Attitudes towards Inclusive Education Scale* (Wilczenski, 1992), Bandura's *Teacher Self-Efficacy Scale* (1997), the *Concerns about Inclusive Education Scale* (Sharma, Desai, 2002), the *Multidimensional Attitudes toward Inclusive Education Scale* (Mahat, 2008) and the *Perceived School Support for Inclusive Education Scale* (Ahmmed, Sharma, Deppeler, 2013), to name a few (Pace, Aiello, 2016).

The data available on Italian teachers with regards to self and teacher efficacy in relation to inclusive practices is relatively new compared to other variables, such as attitudes and concerns. In fact, the most detailed studies available include the two editions of the Teaching and Learning International Survey (TALIS) (OECD, 2009, 2014a, 2014b). These large-scale studies analysed the relationship between demographic variables and the teachers' feelings regarding job satisfaction and self-efficacy. On a local level, Biasi, Domenici, Capobianco, Patrizi (2014) carried out a study using the *Teacher Self-Efficacy Scale* by Tschannen Moran and Woolfolk Hoy (2001). The translated version was administered to collect data on the impact of a professional development course on ICT-oriented integrated teaching strategies on teacher efficacy. Both the TALIS and the Biasi et al. studies examined general teacher efficacy and tapped three main factors: instruction, classroom management and student engagement.

Studies on attitudes towards mainstreaming, integration and inclusion has a longer history in Italy. Since the late 70s, Vianello in collaboration with various other researchers conducted both qualitative and quantitative studies on teachers' attitudes. Some of the most salient results summarised in the chapter by Vianello, Lanfranchi, Moalli and Pulina (2015, p. 18) include:

– teachers who had direct contact and experience seem to have fewer concerns than teachers who have little or no experience. This concerns all types of dis-

ability or special educational need except for students with socio-cultural disadvantage (Vianello, 1999 in Vianello et al., 2015);
– the type of disability influences the teachers' opinions, especially those students with mental or physical disability;
– the main cause of concern is students' behavioural problems and the level of disruption that they may cause.

The fact that more direct contact with the disabled child reduces concerns, also emerged in the results from other research conducted by Castellini, Mega, Vianello (1995; Mega, Castellini, Vianello, 1997, in Vianello et al., 2015) using the *Attitude towards Mainstreaming Scale* (Larivee, Cook, 1979). Moreover, these studies provided insight into the differences in attitudes between General Education (GE) teachers and Learning Support (LS) teachers, with the latter having a more positive attitude. Furthermore, GE teachers teaching in nursery and primary schools had a more positive attitude than their colleagues teaching in lower secondary schools. Balboni and Pedrabissi (2000), in a research involving 678 teachers and which examined attitudes of GE and LS teachers towards the inclusion of students with mental retardation, concluded that LS teachers "were the most favourable, that school teachers with inclusion experience had a more positive attitude and, compared with teachers without such experience, were not negatively affected by age and years of service" (p. 148). Worth noting is that the correlation between the teachers' age and attitudes had also been analysed in the studies conducted by Cornoldi, Terreni, Scruggs and Mastropieri (1998) two years earlier, reaching the same conclusions. This highlights the need for support to and training of teachers teaching at higher levels of education, if inclusive practices are to be guaranteed throughout a child's years of compulsory schooling. In fact, according to the teachers involved in the various studies, the provision of professional development courses, resources, time and more cooperation between the LS and GE teachers are the main factors identified to facilitate the implementation of inclusive practices (Balboni, Pedrabissi, 2000; Cornoldi, Terreni, Scruggs, Mastropieri, 1998; Devecchi, Dettori, Doveston, Sedgwick, Jament, 2012; Vianello et al., 2015).

Interestingly, the results reported in the research conducted among teachers in Campania (Aiello et al., 2016) were in line with those described in the studies carried out nearly 20 years earlier. In this study the correlation between the latent variables (sentiments, attitudes, concerns, teacher efficacy) and a number of demographic variables of 437 teachers from 4 of the 5 provinces in the Campania region were explored. Further, the differences in attitudes between LS and GE teachers as well as the levels in which they teach were analysed, using two scales specifically designed for inclusive contexts: the *Sentiments, Attitudes, and Concerns towards Inclusive Education - Revised (SACIE-R) Scale* (Forlin, Earle, Loreman, Sharma, 2011) and the *Teacher Efficacy to Implement Inclusive Practices (TEIP) Scale* (Sharma, Loreman and Forlin, 2012). Results showed that the level of efficacy was high among the respondents and that there was a positive correlation between teacher efficacy and attitudes towards inclusive education among primary and lower secondary school teachers. Similarly, research conducted in Northern Italy (Fondazione Giovanni Agnelli, 2010; Ianes, Demo, Zambotti, 2010) demonstrated that teachers had high percepts of efficacy and showed a positive attitude towards the integration of students with disability in mainstream schools.

3. Introduction to the Research

The study presented in this paper was conducted in 2015 with two groups of participants. The first group of respondents were student-teachers who enrolled in a teacher education course to obtain the warrant to teach in secondary schools, while the second group involved in-service general education teachers participating in a course for the warrant of learning support teachers.

The research questions (RQ) that guided the study were:

- RQ1. Are there any differences between the students preparing to teach as general education teachers in secondary schools and those preparing to teach as learning support teachers on the latent factors of efficacy, sentiments, attitudes, and concerns?
- RQ2. Do the levels of teacher efficacy and attitudes change with teaching experience?
- RQ3. What are the relationships among the latent factors of sentiments, attitudes, concerns and efficacy when examined separately for teachers in secondary schools and those preparing to teach as learning support teachers?

A questionnaire divided into three sections was administered during the course. The first section aimed at collecting data regarding the respondents' demographic data; the second and third sections were the SACIE-R and TEIP scales respectively. Since the same scales had been used for a previous study (Aiello et al., 2016) and their translation and administration had already been approved by the authors of the original scales, minor modifications were required in order to ensure clarity of items and conform to the anchors of the original scales – a four-point Likert scale for the SACIE-R scale and a six-point Likert scale for the TEIP scale (See Appendix 1 for the revised translated version of the scales as administered in this study).

The SACIE-R scale (Forlin et al., 2011) is a revised version of the SACIE scale and is composed of 15 items selected from the *Attitudes Towards Inclusive Education* scale (ATIES; Wilczenski, 1992); a revised version of the *Interaction with Disabled Persons* (IDP) scale (Gething, 1992); and the *Concerns about Inclusive Education Scale* (CIES) (Sharma, Desai, 2002). This scale was designed with the aim of measuring pre-service teachers' attitudes toward inclusive education, concerns about inclusive education, and sentiments towards persons with disabilities. The TEIP scale (Sharma et al., 2012) includes 18 items apt to measure three core areas of skills required for effective teaching in inclusive classrooms, namely: having knowledge of content and pedagogy, managing classroom environment and behaviour and the ability to work collaboratively with parents and paraprofessionals (Sharma et al., 2012). The two scales were considered to be the most suitable since both were designed specifically to measure latent variables that may influence teacher's willingness to implement inclusive practices.

4. Data Analysis

Sample

The sample was made up of 352 respondents and consisted of two main groups. The first group was composed of 221 (63%) student-teachers who were attending

a teacher education course to obtain the warrant to teach in secondary schools of whom 65% (n=143) were females and 35% (n=78) were males. Ninety percent of the sample were aged between 20 and 39 years and the majority (60%) had no experience in teaching. The remaining 40% were divided into 25% with less than two years of teaching experience, 13% had taught for a period ranging between two and four years, while 2% had more than 4 years of teaching experience. All the respondents, except 1, held at least a university degree.

The second group of respondents were 131 (37%) in-service general education teachers participating in a course for the warrant of learning support teachers. Seventy-five percent (n=98) were females and 25% (n=33) were males. The majority of the respondents (n=68, 52%) were in the 40-49 age range, while 25% (n=33) were aged between 30 and 39 years, 20% (n=13) were over 50, while only 2% (n=3) were between 20 and 29 years of age. The teaching experience varied widely from 2 to over 12 years.

Variables and Scales

As previously outlined, two types of variables were involved in the analysis used to address the research questions in this study – background variables and latent factors of efficacy, sentiments, attitudes, and concerns. The background variables of interest are (a) the grouping of the students to those preparing to teach as general education teachers in secondary schools and those preparing to teach as learning support teachers, and (b) levels of teaching experience (in years). The grouping variable has two nominal categories labeled 1 = students preparing to teach as general education teachers in secondary schools and 2 = students preparing to teach as learning support teachers. The variable for years of teaching experience has six ordinal categories, with values of 0 = none, 1 = less than 2 years, 2 = from 2 to 4 years, 3 = from 5 to 8 years, 4 = from 9 to 12 years, and 5 = more than 12 years. The scores of the respondents on the latent variables are their true (error-free) scores on six latent factors as measured by the scales TEIP (Efficacy in Managing Behaviour [EMB], Efficacy in Collaboration [EC], Efficacy in Inclusive Instruction [EII]) and SACIE-R (Sentiments, Attitudes and Concerns).

Statistical Data Analysis

A confirmatory factor analysis (CFA) was used first to test the data fit of a model with six latent factors, (a) three efficacy factors underlying the TEIP data – EMB, EC, and EII, and (b) three factors underlying the SACIE-R data – Sentiments, Attitudes and Concerns.

Upon validation of the six-factor CFA model, the first research question (RQ1) was addressed by including the grouping variable of the respondents (1 = to teach as general education teachers in secondary schools and 2 = to teach as learning support teachers) in the CFA model as a covariate for each of the six latent factors of the TEIP and SACIE-R scales. Likewise, the second research question (RQ2) was addressed by using the six-level variable of teaching experience in the CFA model as a covariate for each of the six latent factors of the TEIP and SACIE-R scales. Finally, the third research question (QR3) was addressed by examining the correlations among the six latent factors of the TEIP and SACIE-R scales, separately with the data for (a) students preparing to teach as general education teachers in secondary schools and (b) students preparing to teach as learning support teachers. All analyses were conducted using the computer program Mplus (Muthén & Muthén, 2012).

5. Results

Prior to conducting analyses to address the three research questions, the CFA model with six latent factors - three TEIP factors (EMB, EC, and EII) and three SACIE-R factors (CONCERNS, SENTIMENTS, and ATTITUDES) - was tested for data fit. The results from the initial test for data fit indicated that three items of the TEIP scale (items 16, 17, and 18) were causing serious fit problem and, therefore, were excluded from the set of 18 items of this scale in subsequent analyses. The six-factor CFA model, with 15 items of the TEIP scale and 15 items of the SACIE-R scale, was then tested for data fit. The goodness-of-fit indexes, reported with Mplus, indicated a tenable data fit of this CFA model. Specifically, the chi-square value was statistically significant, $\chi^2(372) = 683.456$, $p < .001$, but this was not taken into account in the data fit decision due to the high sensitivity of this statistic to sample size. The decision was based on the joint examination of the following goodness-of-fit indexes, with the conditions for tenable fit given in parentheses after the respective values of each index, (a) CFI = 0.918 (CFI > 0.90), (b) SRMR = 0.060 (SRMR < 0.80), and (c) RMSEA = 0.049, with 90% confidence interval = (0.043, 0.054); (the entire interval being below 0.08 is a condition for tenable data fit); (e.g., Hu & Bentler, 1999; Marsh, Wen, & Hau, 2004).The standardized factor loadings for the six-factor CFA model are provided in Table 1. The Cronbach's coefficient alpha of reliability for the study data on the TEIP and SACIE-R scales was suitable for the purpose of the study (0.923 and 0.752, respectively).

The results related to RQ1 indicated that the students preparing to teach as learning support teachers were associated with higher scores, compared to those preparing to teach as secondary high school teachers, on all three TEIP factors (EMB, EC, and EII) and two SACIE-R factors (CONCERNS and ATTITUDES), but there was no difference on SENTIMENTS. The results are summarized in Table 2, where the effect size indicates the difference in standard deviations of the respective latent factor (Hancock, 2004; see also Dimitrov, 2012, p. 120).

The results related to RQ2, provided in Table 3, show that the level of teaching experience (in years) of the participants is not associated with their scores on all the TEIP factors (EMB, EC, and EII) and two SACIE-R factors (CONCERNS and SENTIMENTS). There is a statistically significant negative relationship between level of teaching experience and the latent factor ATTITUDES, but it is negligible in magnitude (r = -0.149, p = .018). Thus, the general trend is that the level of teaching experience of the participants is not related to their scores on the latent factors of the TEIP and SACIE-R scales. On surface, the trend of negative correlation between the level of teaching experience and ATTITUDES may seem in contradiction with the result that students preparing to teach as learning support teachers were associated with higher scores on ATTITUDES (see Table 2), but at the same time they have higher levels of teaching experience. Clearly, the higher level of ATTITUDES for these students is not related to their level of teaching experience but, instead, may be linked to some characteristics of their course of education.

The results related to RQ3 indicated that the relationships among the six latent factors of the TEIP and SACIE-R scales vary across the two groups of students, (a) those preparing to teach as learning support teachers and (b) those preparing to teach as secondary high school teachers. The respective correlation coefficients are provided in Tables 4 and 5, respectively.

Factor/Item	Λ	*SE*(λ)	*p*-value
TEIP: EMB			
C1	0.578	0.043	< .001
C2	0.701	0.032	< .001
C7	0.628	0.040	< .001
C8	0.839	0.027	< .001
C11	0.647	0.038	< .001
TEIP: EC			
C3	0.671	0.034	< .001
C4	0.757	0.032	< .001
C9	0.668	0.035	< .001
C12	0.669	0.039	< .001
C13	0.661	0.039	< .001
TEIP: EII			
C5	0.725	0.031	< .001
C6	0.712	0.036	< .001
C10	0.730	0.031	< .001
C14	0.678	0.034	< .001
C15	0.578	0.040	< .001
SACIE-R: CONCERNS			
B1	0.289	0.066	< .001
B4	0.500	0.061	< .001
B7	0.583	0.064	< .001
B10	0.467	0.066	< .001
B14	0.453	0.061	< .001
SACIE-R: SENTIMENTS			
B2	0.307	0.063	< .001
B5	0.495	0.055	< .001
B9	0.352	0.061	< .001
B11	0.582	0.055	< .001
B13	0.520	0.055	< .001
SACIE-R: ATTITUDES			
B3	0.463	0.055	< .001
B6	0.542	0.052	< .001
B8	0.640	0.050	< .001
B12	0.476	0.056	< .001
B15	0.659	0.050	< .001

Tab. 1: Standardized Factor Loadings With Their Standard Errors for the Six-Factor CFA Model of TEIP and SACIE-R Scales

Factor	γ	*SE*(γ)	*p*-value	ES
EMB	0.180	0.070	0.010	0.317
EC	0.182	0.080	.023	0.279
EII	0.179	0.073	.014	0.304
CONCERNS	0.163	0.061	.008	0.550
SENTIMENTS	-0.068	0.052	.195	—
ATTITUDES	0.114	0.042	.007	0.374

Tab. 2: Differences Between Two Groups of Students (Preparing to Teach as Secondary High Schools Teachers and as Learning Support Teachers) on Six Latent Factors of the TEIP and SACIE-R Scales
Note. The effect size (ES) of the difference between the two groups of students on each latent factor is measured in standard deviations of that factor; (NA = Not Applicable, for the lack of statistically significant difference). The ES values of medium magnitude by the Cohen's (1988) guidelines; γ = unstandardized regression coefficient representing the group difference on the respective latent factor. All statistically significant differences (p< .05) are in favour of the students preparing to teach as learning support teachers.

Factor	*r*	*p*-value
EMB	-.046	.431
EC	-.113	.051
EII	-.059	.319
CONCERNS	-.094	.191
SENTIMENTS	-.108	.122
ATTITUDES	-.149	.018

Tab 3: Correlations Between the Level of Teaching Experience (in Years) and Latent Factors of the TEIP and SACIE-R Scales
Note: r = Pearson correlation coefficient.

Factor	EMB	EC	EII	CONC.	SENT.	ATT.
EMB	1	.67	.72	.48	.35	.23
EC		1	.80	.40	.35	.31
EII			1	.39	.20	.26
CONCERNS				1	.70	.36
SENTIMENTS					1	.58
ATTITUDES						1

Tab. 4: Correlations Among Latent Factors of the TEIP and SACIE-R Scales for Students Preparing to Teach as Secondary High School Teachers
Note. All correlation coefficients are statistically significant (p < .01).

Factor	EMB	EC	EII	CONC.	SENT.	ATT.
EMB	1	.82*	.89*	.14	.14	.20
EC		1	.96*	.18	.07	.26*
EII			1	.18	.05	.12
CONCERNS				1	.99*	-.06
SENTIMENTS					1	.15
ATTITUDES						1

Tab.5: Correlations Among Latent Factors of the TEIP and SACIE-R Scales for Students Preparing to Teach as Learning Support Teachers
Note. There are no statistically significant correlations between the TEIP and SACIE-R latent factors except for the correlation between EC and ATTITUDES (r = .26).
*Statistically significant correlation coefficient (p < .01).

6. Conclusions

This paper aimed at presenting the studies being carried out on the variables that may influence a teacher's decision to implement inclusive classroom practices both in Italy and abroad and the theoretical framework supporting such hypotheses. The rationale for undertaking such investigations is based both on the latest developments and attention from a plethora of fields of research on human, and more specifically, teacher agency as well as the longstanding research on an international level. Having been one of the pioneers to abolish special schools, and with nearly all students with a disability attending mainstream state schools (ISTAT,

2015), the perceptions of Italian teachers can provide a wealth of information on the factors that may impinge on the success and sustainability of inclusive classroom practices. Hence, it was considered timely not only to conduct research on the issue but also investigate the use of already validated scales to be able to compare data with other countries.

The TEIP and SACIE-R scales were deemed suitable essentially because the items included are specifically related to inclusive practices, are task specific and even if these were designed for completely different cultures and school systems the wording of the items was suitable for the Italian context, requiring minor modifications during their translation. Moreover, the TEIP scale was "developed from a socio-cultural perspective of diversity rather than a medical model of deviance" (Sharma, et al., 2012, p. 6). This is also true for the SACIE-R scale which, in addition to determining comfort levels when in contact with people with disabilities (items related to sentiments), it gauges acceptance of learners with disability and with Special Educational Needs. This is completely in line with the notion of inclusive education as envisaged in current Italian norms and with the reality encountered in school contexts. The items related to concerns about implementing inclusive practices request teachers to give their opinion on issues raised in previous studies conducted in Italy: time, competence to teach students with disability, resources and workload (Balboni e Pedrabissi, 2000; Cornoldi, Terreni, Scruggs & Mastropieri, 1998; Devecchi, Dettori, Doveston, Sedgwick & Jament, 2012; Vianello et al., 2015).

On a more technical note, research findings conducted with the English version of the scales as well as the studies carried out in Italy show that the scales have strong validity and reliability (Aiello et al., 2016; Forlin et al., 2011; Sharma et al., 2012; Murdaca, Oliva & Costa, 2016) not only when administered to preservice but also to in-service teachers. It is strongly suggested, however, that these scales are used alongside the collection of qualitative data in order to give depth and further meaning to the findings generated. Apart from being instrumental for research, both scales can also be used as opportunities for self-reflection during teacher-education courses, as formative evaluate tools to measure progress, or as pre-post tests to measure the impact of training programmes on the six latent variables. In addition, these scales could be useful to gauge levels of competence in inclusive practices (TEIP scale), main sentiments, attitudes and concerns of course participants in order to offer professional tailor-made programmes to bridge the gaps, reduce concerns and impinge on attitudes.

The results of this study reveal that learning support teachers have higher scores on all six factors than the general education teachers. This could be due to the fact that they are older in age, or because, having chosen to pursue their career in special education, they are more positive and hold stronger beliefs in the success of inclusive education. The analysis carried out on the correlation between levels of teaching experience and attitudes, indirectly supported the hypothesis that some characteristics of the course of education of learning support teachers may actually influence attitudes. These results call for further research on the effect of training and continuous professional development on teachers' attitudes as well as other variables impinging on teacher agency in inclusive contexts.

In conclusion, therefore, all stakeholders involved in teacher preparation and professional development need to take cognisance of the fact that for inclusive education to be implemented and sustained effectively over time, teachers not only need to have the necessary knowledge and skills but also to reflect and act on other factors, often ignored, that impact teacher agency. The theoretical framework pre-

sented and the findings of this study seem to confirm that continuous professional development, especially with teachers teaching in secondary schools is required and teachers seem to be aware of such lack of competence. This is very positive and encouraging since teachers are willing to dedicate their time to grow professionally, but courses need to aim at meeting the teachers' specific needs in order to reduce concerns regarding the implementation of innovative didactic practices that meet the needs of all learners and promote more positive attitudes towards inclusion among other variables that are predictive of the success and effectiveness of inclusive education.

On the basis of such a premise, this research can be considered an attempt to provide scientific evidence to guide the reprogramming of teacher training programmes in light of the paradigm of inclusion, for which a new teacher profile has been defined (EADSNE, 2012). As outlined in the document *Profile of Inclusive Teachers* (EADSNE, 2012), such teachers are eminently reflective teachers, in other words able to analyse their actions, to reflect on the decisions taken, to identify and implement suitable strategies in order to respond to each of the students' individual educational needs.

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APPENDIX 1

The Sentiments, Attitudes and Concerns about Inclusive Education Scale Revised (SACIE-R) (Forlin, Earle, Loreman, & Sharma, 2011)

Cerchiare il numero che meglio rappresenta la vostra opinione a riguardo di ogni affermazione:

Totalmente in Disaccordo (TD)	In Disaccordo (D)	D'Accordo (A)	Totalmente D'Accordo (TA)

1.	Sono preoccupato del fatto che gli studenti disabili non saranno accettati dal resto della classe.	TD	D	A	TA
2.	Temo il sol pensiero di avere una disabilità in futuro.	TD	D	A	TA
3.	Gli studenti con difficoltà nell'esprimere i propri pensieri verbalmente devono essere accolti ed integrati nei contesti scolastici.	TD	D	A	TA
4.	Sono preoccupato del fatto che sarà difficile fornire un'adeguata attenzione a tutti gli studenti in una classe inclusiva.	TD	D	A	TA
5.	Tendo ad avere contatti di breve durata con le persone con disabilità e ad interromperli il prima possibile.	TD	D	A	TA
6.	Gli studenti che sono distratti devono essere accolti ed integrati nei contesti scolastici.	TD	D	A	TA
7.	Sono preoccupato per il fatto che, se avrò studenti disabili nella mia classe, la mia mole di lavoro aumenterà.	TD	D	A	TA
8.	Gli studenti che necessitano di tecnologie comunicative (ad es. Braille e LIS) devono essere accolti ed integrati nei contesti scolastici.	TD	D	A	TA
9.	Mi sentirei malissimo se avessi una disabilità.	TD	D	A	TA
10.	Sono preoccupato del fatto che, con studenti disabili nella mia classe, sarò più stressato.	TD	D	A	TA
11.	Ho paura di guardare in volto una persona con disabilità.	TD	D	A	TA
12.	Gli studenti che non superano gli esami frequentemente devono essere accolti ed integrati nei contesti scolastici.	TD	D	A	TA
13.	Trovo difficile superare lo shock iniziale quando incontro persone con serie disabilità fisiche.	TD	D	A	TA
14.	Sono preoccupato del fatto che non ho le conoscenze e le abilità necessarie per insegnare a studenti con disabilità.	TD	D	A	TA
15.	Gli studenti che hanno bisogno di un pianificazione didattica individualizzata devono essere accolti ed integrati nei contesti scolastici.	TD	D	A	TA

Teacher Efficacy for Inclusive Practices Scale (TEIP)
(Sharma, Loreman and Forlin, 2012)

Cerchiare il numero che meglio rappresenta la vostra opinione a riguardo di ogni affermazione:

1	2	3	4	5	6
Totalmente in Disaccordo (TD)	**In Disaccordo (D)**	**Parzialmente in Disaccordo (PD)**	**Parzialmente d'Accordo (PA)**	**D'Accordo (A)**	**Totalmente d'Accordo (TA)**

		TD	D	PD	PA	A	TA
1.	Sono in grado di rendere chiare le mie aspettative riguardo il comportamento degli studenti.	1	2	3	4	5	6
2.	Sono in grado di calmare uno studente che disturba o che è rumoroso.	1	2	3	4	5	6
3.	Sono sicuro di essere in grado di mettere a loro agio i genitori quando si recano a scuola.	1	2	3	4	5	6
4.	Sono in grado di fornire assistenza alle famiglie affinché i loro figli ottengano il successo scolastico.	1	2	3	4	5	6
5.	Sono in grado di valutare accuratamente il livello di comprensione degli studenti rispetto a quanto ho insegnato loro.	1	2	3	4	5	6
6.	Sono in grado di fornire stimoli adeguati agli studenti più capaci.	1	2	3	4	5	6
7.	Sono sicuro di essere in grado di prevenire comportamenti di disturbo in classe prima che essi si realizzino.	1	2	3	4	5	6
8.	Sono in grado di controllare comportamenti di disturbo in classe.	1	2	3	4	5	6
9.	Sono sicuro di essere in grado di coinvolgere i genitori di bambini con disabilità nelle attività scolastiche.	1	2	3	4	5	6
10.	Sono sicuro di essere in grado di pianificare attività di apprendimento in modo da rispondere ai bisogni individuali degli studenti con disabilità.	1	2	3	4	5	6
11.	Sono in grado di far seguire ai bambini le regole della classe.	1	2	3	4	5	6
12.	Sono in grado di collaborare con altri professionisti (insegnanti di sostegno, logopedisti, etc.) nella redazione di piani educativi per studenti con disabilità.	1	2	3	4	5	6
13.	Sono in grado di lavorare insieme ad altri professionisti (docenti curricolari, insegnanti di sostegno ed altre figure professionali) per insegnare a studenti con disabilità.	1	2	3	4	5	6
14.	Sono sicuro di essere in grado di far lavorare gli studenti in coppia o in piccoli gruppi.	1	2	3	4	5	6
15.	Sono in grado di utilizzare varie modalità di valutazione (per esempio, il portfolio, i test, etc.).	1	2	3	4	5	6
16.	Sono sicuro di essere in grado di fornire informazioni ad altri che sanno poco delle politiche e le leggi in merito all'inclusione di studenti con disabilità.	1	2	3	4	5	6
17.	Sono sicuro di essere in grado di gestire studenti che sono fisicamente aggressivi.	1	2	3	4	5	6
18.	Sono in grado di fornire una spiegazione alternativa, oppure di utilizzare esempi, quando gli studenti sono confusi.	1	2	3	4	5	6

References

Ahmmed M., Sharma U., Deppeler J. (2013). Variables affecting teachers' intentions to include students with disabilities in regular primary schools in Bangladesh. *Disability and Society*, May 2013. doi:10.1080/09687599.2013.796878.

Aiello P., Sharma U., Sibilio M. (2016). La centralità delle percezioni del docente nell'agire didattico inclusivo: perché una formazione docente in chiave semplessa? *Giornale Italiano della Ricerca Educativa*, IX, 17-28.

Aiello P., Sharma U., Dimitrov D.M., Di Gennaro D.C., Pace E.M., Zollo I., Sibilio M. (2016). Indagine sulle percezioni del livello di efficacia dei docenti e sui loro atteggiamenti nei confronti dell'inclusione. *L'Integrazione Scolastica e Sociale*, *15*(1), 64-87.

Aiello P., Sharma U., Di Gennaro D.C., Dimitrov D.M., Pace E.M., Zollo I., Sibilio M. (2017).

A study on Italian teachers' sentiments, attitudes and concerns towards inclusive education. *Formazione, Lavoro, Persona*, VII(20), 10-24.
Altet M., Charlier E., Paquay L., Perrenoud P. (2006). *Formare gli insegnanti professionisti. Quali strategie? Quali competenze?* Roma: Armando.
Armstrong A.C., Armstrong D., Spandagou I. (2010). *Inclusive Education: International Policy and Practice*. London: Sage.
Avramidis E., Norwich B. (2002). Teachers' attitudes toward integration/inclusion: A review of the literature. *European Journal of Special Needs Education*, *17*(2), 129-147. doi:10.1080/08856250210129056.
Balboni G., Pedrabissi L. (2000). Attitudes of Italian teachers and parents toward school inclusion of students with mental retardation: The role of experience. *Education and Training in Mental Retardation and Development Disabilities*, *35*(2), 148-159.
Bandura A. (1989). Human agency in Social Cognitive Theory. *American Psychologist*, 44(9), 1175-1184.
Bandura A. (1997). *Self-efficacy: The Exercise of Control*. New York: W.H. Freeman & Company.
Berryman J.D., Neal W.R. (1980). The cross validation of the Attitudes Toward Mainstreaming Scale (ATMS). *Education and Psychological Measurement*, *40*, 467-474.
Biasi V., Domenici G., Capobianco R., Patrizi N. (2014). Teacher efficacy scale (Scala sull'Autoefficacia del Docente – SAED): Adattamento e validazione in Italia. *ECPS Journal*, *10*, pp. 485-509. doi:10.7358/ecps-2014-010-bias.
Castellini K., Mega C., Vianello R. (1995). L'integrazione di studenti con handicap mentale nella scuola media: l'atteggiamento degli insegnanti. *I Care*, *1*, 2-16.
Cohen J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
Cornoldi C., Terreni A., Scruggs T., Mastropieri M. (1998). Teacher attitudes in Italy after twenty years of inclusion. *Remedial and Special Education*, *19*, 350-356.
Devecchi C., Dettori F., Doveston M., Sedgwick P., Jament J. (2012). Inclusive classrooms in Italy and England: The role of support teachers and teaching assistants. *European Journal of Special Needs Education*, *27*(2), 171-184, doi:10.1080/08856257.2011.645587.
Dimitrov D.M. (2012). *Statistical methods for validation of assessment scale data in counseling and related fields*. Alexandria, VA: American Counseling Association.
European Agency for Development in Special Needs Education (EADSNE) (2012). *Profile of inclusive teachers*, Odense, Denmark, EADSNE.
Fiorucci A. (2014). Gli atteggiamenti degli insegnanti verso l'inclusione e la disabilità: uno sguardo internazionale. *Italian Journal of Special Education for Inclusion*, *II*(1), 53-66.
Fondazione Giovanni Agnelli (2010). *Rapporto sulla Scuola in Italia*. Roma-Bari: Laterza.
Forlin C., Earle C., Loreman T., Sharma U. (2011). The Sentiments, Attitudes and Concerns about Inclusive Education Revised (SACIE-R) scale for measuring teachers' perceptions about inclusion. *Exceptionality Education International*, *21*(3), 50-65.
Gething L., Wheeler B. (1992). The interaction with disabled persons scale: A new Australian instrument to measure attitudes towards people with disabilities. *Australian Journal of Psychology*, *44*(2), 75-82.
Hattie J.A.C. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London, UK: Routledge.
Hecht P., Aiello P., Pace E.M., Sibilio M. (2017). Attitudes and teacher efficacy among Italian and Austrian teachers: A comparative study. *European Journal of Research on Education and Training*, XV(1), 269-282.
Hu L.T., Bentler P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6,* 1-55.
Ianes D., Demo H., Zambotti F. (2010). *Gli insegnanti e l'integrazione: Atteggiamenti, opinioni e pratiche.* Trento: Erickson.
ISTAT (2015). *L'integrazione scolastica degli alunni con disabilità a.s. 2014/2015*. Retrieved from: http://www.istruzione.it/allegati/2015/L'integrazione_scolastica_degli_alunni_con_disabilit%C3%A0_as_2014_2015.pdf.
Laneve C. (2011). *Manuale di Didattica*. Brescia: La Scuola.

Larrivee B., Cook L. (1979). Mainstreaming: A study of the variables affecting teacher attitude. *The Journal of Special Education*, *13*(3), 315-324.
Mahat M. (2008). The Development of a Psychometrically-Sound Instrument to Measure Teachers' Multidimensional Attitudes toward Inclusive Education. *International Journal of Special Education*, *23*(1), 82-92.
Marsh H.W., Wen Z., Hau K.T. (2004). Structural equation models of latent interactions: Evaluation of alternative estimation strategies and indicator construction. *Psychological Methods, 9*, 275-300.
Mega C., Castellini K., Vianello R. (1997). Gli atteggiamenti degli insegnanti verso gli allievi con handicap: dalla scuola media a quella superiore. In R. Vianello e C. Cornoldi (Eds.). *Metacognizione e sviluppo della personalità. Ricerche e proposte di intervento* (pp. 265-279). Bergamo: Junior.
Murdaca A.M., Oliva P., Costa S. (2016). Evaluating the perception of disability and the inclusive education of teachers: the Italian validation of the Sacie-R (Sentiments, Attitudes, and Concerns about Inclusive Education – Revised Scale). *European Journal of Special Needs Education*, 1-9. doi: 10.1080/08856257.2016.1267944.
Muthén L. K., Muthén B. O. (2012). *Mplus user's guide*. Los Angeles, CA: Muthén & Muthén.
OECD (2009). *Creating Effective Teaching and Learning Environments: First Results from TALIS*. Available at: www.oecd.org/edu/school/43023606.pdf.
OECD (2014a). *TALIS 2013 results: An International Perspective on Teaching and Learning*. Available at: http://dx.doi.org/10.1787/9789264196261-en.
OECD (2014b). *TALIS 2013 technical report.* Available at: www.oecd.org/edu/school/TALIS-technical-report-2013.pdf.
Pace E.M., Aiello P. (2016). Deciding to act: Teachers' willingness to implement inclusive practices. *Education Sciences & Society*, 7(1), 138-160. Retrieved from http://ojs.francoangeli.it/_ojs/index.php/ess/article/view/3502.
Pace E.M. (2017). *Instilling teachers' willingness to foster inclusive classroom practices. Can simplexity address this complexity?* Lecce: Pensa.
Perla L. (2010). *La Didattica dell'Implicito. Ciò che l'Insegnante Non Sa*. Brescia: La Scuola.
Rivoltella P.C. (2012). *Neurodidattica. Insegnare il Cervello che Apprende*. Milano: Raffaello Cortina.
Rivoltella P.C. (2014). *La Previsione. Neuroscienze, Apprendimento e Didattica*. Brescia: La Scuola.
Rossi P.G. (2011). *Didattica Enattiva. Complessità, Teorie dell'Azione, Professionalità Docente.* Milano: FrancoAngeli.
Saloviita T. (2015). Measuring pre-service teachers' attitudes towards inclusive education: Psychometric properties of the TAIS scale. *Teaching and Teacher Education*, *52*, 66-72.
Sharma U., Aiello P., Pace E.M., Round P., Subban P. (2017). In-service teachers' attitudes, concerns, efficacy and intentions to teach in inclusive classrooms: an international comparison of Australian and Italian teachers. *European Journal of Special Needs Education*. Doi: 10.1080/08856257.2017.1361139.
Sharma U., Desai I. (2002). Measuring concerns about integrated education in India. *Asia & Pacific Journal on Disability*, *5*(1), 2-14.
Sharma U., Loreman T., Forlin C. (2012). Measuring teacher efficacy to implement inclusive practices. *Journal of Research in Special Educational Needs*, *12*(1), 12-21. doi: 10.1111/j.1471-3802.2011.01200.x.
Sibilio M. (2014). *La Didattica Semplessa*. Napoli: Liguori
Tschannen-Moran M., Woolfolk Hoy A. (2001). Teacher efficacy: capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783-805. doi:10.1016/S0742-051X(01)00036-1.
Tschannen-Moran M., Woolfolk Hoy A., Hoy W.K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, *68*(2), 202-248.
Vianello R. (1999). *Difficoltà di apprendimento, situazioni di handicap, integrazione*. Bergamo: Junior.

Vianello R., Lanfranchi S., Moalli E., Pulina F. (2015). Tutti in classe normale. Le opinioni degli insegnanti, dei compagni e dei genitori. In R. Vianello, Di Nuovo, S. (Eds.). Quale scuola inclusiva in Italia? Oltre le posizioni ideologiche: risultati della ricerca (pp. 17-33). Trento: Erickson.

Wilczenski F.L. (1992). Reevaluating the factor structure of the attitudes toward mainstreaming scale. *Educational & Psychological Measurement*, *52*, 499-504.